

REMARKS/ARGUMENTS

Reconsideration and withdrawal of the rejections of the application are respectfully requested in view of the foregoing amendments and the following remarks:

I. STATUS OF THE CLAIMS AND FORMAL MATTERS

Claims 1-31 are pending in this application. Claims 1, 8-10, 16-18 and 31 have been amended in this response. Support for this amendment can be found on page 9, lines 1-9, page 15, lines 28-33 and Fig. 3 of the Application as originally filed. Claims 5 and 7 are hereby cancelled without prejudice or surrender of subject matter.

II. THE REJECTIONS UNDER 35 U.S.C. § 112

Claims 16, 17 and 31 were rejected under 35 U.S.C. §112 as being unclear. These claims have been amended in this response, obviating the rejection.

III. THE REJECTIONS UNDER 35 U.S.C. §§ 102 & 103

Claims 1, 2, 4, 8, 9 and 15 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 3,182,103 to Blaylock. Claims 1, 2, 8, 9, 11 and 15 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,399,143 to Sun et al. ("Sun"). Claims 1, 2, 4, 5, 7-9, 11-15 and 18-30 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,506,456 to Sharma. Claims 3 and 6 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Sharma. The rejections are traversed for at least the following reasons:

Independent claim 1 recites, *inter alia*:

"...adjusting the relative positions of said means (10;20;30;40;50;60;70;80;100) for ejecting said particles, said surface and said electrode (11;21;31;41;51;71;101) in order to control the positions at which said particles are applied on said surface." (emphasis added)

As understood by the Applicant, Blaylock relates to a process for treating hollow thermoplastic articles such as light bulbs. Specifically, Blaylock teaches patternwise

electrostatic coating on these articles by inserting a conductive fluid and applying particles through a patterned screen. Blaylock, however, basically refers to a screen printing technique where the resultant print is dependent on the screen used. The article receives a coating in a pattern corresponding to the pattern of openings in screen 30. Blaylock, in other words, cannot guide each of the particles individually to a predetermined position on the surface, as recited in the instant claims.

As understood by the Applicant, Sun relates to an apparatus for electrostatically adhering grains to a planar substrate comprising an electrostatic chuck having a collection surface with a grains collection zone for electrostatically directing charged grains to a corresponding surface on the planar substrate and a pattern of holes through the electrostatic chuck allowing a source of low pressure to act through the electrostatic chuck to adhere the planar substrate. Sun also does not teach or disclose guiding each of the particles individually to a predetermined position on the surface by means of an adjustable electric field having flux lines with a longitudinal direction extending through the surface.

As to Sharma, it relates to a method for applying a fluid on a substrate formed as a film or web or laminate in which the substrate is located between two spaced apart electrodes for generating an electrostatic field. An electrostatic field is generated on each side of substrate and a fluid is introduced as droplets for application to the substrate into the electrostatic field on at least one side of the substrate, forming electrostatically charged droplets. The electrostatically charged droplets are directed based upon a predetermined pattern onto the sides of the substrate. Sharma fails to teach the very essential element in the instant claims; application of a coating on a three dimensionally distributed surface. The portions of Sharma that the Examiner relies on

relate to a three-dimensional fibrous web and not articles or surfaces, as recited in the instant claims.

Therefore, Applicant respectfully submits that none of the cited references taken either alone or in combination teach or suggest the above identified feature of claim 1. Specifically none of the cited references teach or disclose a method or device for contactless application of a coating on a three dimensionally distributed surface that adjusts the relative positions of the means for ejecting spray particles, the surface and the electrodes in order to control the positions at which the particles are applied on the surface, as recited in claim 1.

Applicant further submits that by adjusting the relative positions of the means and the electrode and the surface, the electrical field over the surface could be altered. Thus, the flux lines will also be altered in relation to the surface. The particles follow different flux lines as the electrical field is altered and could be applied on a predetermined position on the 3-dimensional surface without notable image distortion.

For at least the foregoing reasons, Applicant respectfully submits that instant claim 1 patentably distinguishes over the cited prior art, and is therefore allowable. Further, claim 18 which is similar in scope with claim 1 is allowable for similar reasons. The dependent claims in this application depend on either claim 1 or 18 and are therefore allowable therewith.

Statements appearing above with respect to the disclosures in the cited references represent the present opinions of the Applicant's undersigned attorney and, in the event that the Examiner disagrees with any such opinions, it is respectfully requested that the Examiner specifically indicate those portions of the respective reference providing the basis for a contrary view.


CONCLUSION

In view of the foregoing amendments and remarks, it is believed that all of the claims in this application are patentable over the prior art, and an early and favorable consideration thereof is solicited.

Please charge any fees incurred by reason of this response and not paid herewith to
Deposit Account No. 50-0320.

Respectfully submitted,
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